APPLICATION FOR UNITED STATES LETTERS PATENT

ON INVENTION FOR:

DEVICE TO FACILITATE DONNING A SOCK

BY INVENTOR: Nicolas Klammer

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Agt. Doc. No.: KLAN17A

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TO ALL WHOM IT MAY CONCERN:

BE IT KNOWN that I, Nicolas Klammer, a citizen of GERMANY & ARGENTINA and resident of: Plant City, FL 33567 have invented certain new and useful improvements in a(n): DEVICE TO FACILITATE DONNING A SOCK of which the following is a full, clear, concise and exact description:

Inventor: Nicolas Klammer
Invention: DEVICE FOR FACILITATING DONNING A SOCK
DOC. No.: KLAN17A

CROSS REFERENCE TO RELATED APPLICATIONS

The instant application contains subject matter disclosed in applicant's Application filed in the Republic of Argentina, Acta No. P 02 01 04378, filed on Nov. 14, 2002 which is presently copending and accordingly it is respectfully requested that this application be accorded priority benefits of the above priority date of Nov. 14, 2002, under Title 35 USC 119(a)-(d) or 365(b) of any foreign application(s).

BACKGROUND OF THE INVENTION

Field of the Invention:

The present invention relates to a sock related device. More particularly, the present invention relates to a device for facilitating donning a sock on a user's foot.

Description of the Prior Art:

Numerous innovations for sock donning assist devices have be n provided in the prior art that will be described. Even though these innovations may be suitable for the specific individual purposes to which they address, however, they differ from the present invention.

A FIRST EXAMPLE, U.S. Patent No. 2,796,207 to Young teaches a guide device for facilitating the putting on of a stocking, comprising a body member of smooth and flexible material substantially in the shape of the lower leg and foot of a human, said member being open at its lower end and having a slot extending from its open lower end medically along the sole

and upwardly to the top of the member, and means for removably connecting a stocking to said member.

A SECOND EXAMPLE, U.S. Patent No. 2,828,057 to MacLauchlan teaches a device for putting on a stocking comprising a substantially flat elongated base adapted for placement thereon of a person's foot, a pair of members extending upwardly from the sides of said base and running approximately from the front to the rear of said base, said members each being provided with a hump intermediate the front and rear of said base, a pair of rigid elongated elements respectively connected at one end with said members and extending upwardly and rearwardly of the rear end of said base, the upper ends of said elements being operative as handles for controlling placement of said base, a pair of elongated webs respectively extending from upper portions of said elements approximately to said members, and means for removably attaching the extending ends of said webs to a stocking.

A THIRD EXAMPLE, U.S. Patent No. 4,066,194 to Leland teaches a device for assisting one in the donning of a sock, stocking, or like foot covering. In a preferred form, the device comprises a handle member from which laterally and transversely depend a pair of sock expanding and gripping members. The sock expanding and gripping members are designed to be placed within the sock and serve to spread same longitudinally, horizontally and vertically to permit easy entry of the foot. The user then brings the foot covering about the foot and ankle and utilizes a unique combination frame positioner and sock release device to release th sock and withdraw the device.

A FOURTH EXAMPLE, U.S. Patent No. 4,284,216 to Leland teaches an improved device for assisting one in the donning of a sock, stocking, or like foot covering. The device comprises a handle member from which laterally and transversely depend a pair of sock expanding and holding members which are adapted to be placed within a sock to spread same for permitting easy entry of the foot of a user. An improved control bar extends between the wire-like handle members and permits the spacing

between same to be adjustable to any of a plurality of distances, correspondingly varying the distance between the sock engaging members. An auxiliary holding member may be provided for facilitating use of the device by an amputee.

A FIFTH EXAMPLE, U.S. Patent No. 4,756,453 to Pettit et al. teaches a device to assist a person with putting on stockings, or other hosiery, that includes a pair of posts connected by a hinge. Each post is fitted with a hosiery inversion arm. A user places a sock, or the like hose, over both arms, the top inverted and the sock toe extending downward between the arms. The user then spreads the posts apart to stretch the sock open and pushes a foot into the open sock, the sock unfolding as it is mounted on the foot.

A SIXTH EXAMPLE, U.S. Patent No. 5,082,154 to French teaches an apparatus for assisting an individual in donning hosiery. The apparatus includes a base member operatively attached to a three legged hosiery support unit having two angles side legs supporting members, and an angled rear support leg member which suspend and expands the opening of an article of hosiery to accept the insertion of the user's foot.

A SEVENTH EXAMPLE, U.S. Patent No. 5,632,424 to Maier et al. teaches a sock donning assist device that allows a caretaker to put a sock on a disabled person who can not put the sock on themselves. The sock donning assist device includes a hollow rigid substantially L-shaped frame. The hollow rigid substantially L-shaped frame consists of a plurality of different sized and shaped slender members. The plurality of different sized and shaped slender members form a substantially vertically-oriented portion for retaining a sock during donning wherein the sock has an upper portion and a lower portion, and a horizontally-oriented portion extending forwardly from the substantially vertically-oriented portion of the hollow rigid substantially L-shaped frame for gripping by a user during donning the sock. Prior to donning the sock the substantially vertically-oriented portion of the hollow rigid substantially L-shaped frame receives the lower portion of the sock and the substantially vertically-oriented

portion of the hollow rigid substantially L-shaped frame is received by the upper portion of the sock. During donning the substantially vertically-oriented portion of the hollow rigid substantially. L-shaped frame is progressively removed from the upper portion of the sock.

AN EIGHTH EXAMPLE, U.S. Patent No. 5,706,988 to Moore teaches a stocking aid device that comprises a pair of rigid handles for ease of manipulation and a U-shaped member which is connected pivotally to the rods about a generally transverse axis with a sufficient degree of freedom to allow the U-shaped member to pivot freely about the axis and slide over the user's heel and up the back of the leg when applying the stocking. The U-shaped member thus follows a curving path under the sole of the foot around the heel and up the back of the leg whilst applying the stocking. This is facilitated by a slight twisting of the rods which provide handles, so as to impede rotation of the U-shaped member. One edge is flared outwardly to form a flange comprising a series of indentations. The indentations are pointed, but are not sharp, such that a sock or stocking is placed into the concave side of the U-shaped member and part of the elasticated rim of the stocking is hooked over the indentations so as to grip the stocking prior to applying a stocking with the device.

It is apparent that numerous innovations for sock donning assist devices have been provided in the prior art that are adapted to be used. Furthermore, even though these innovations may be suitable for the specific individual purposes to which they address, however, they would not be suitable for the purposes of the present invention as heretofore described.

SUMMARY OF THE INVENTION

ACCORDINGLY, AN OBJECT of the present invention is to provide a device for facilitating putting on a sock that avoids the disadvantages of the prior art.

ANOTHER OBJECT of the present invention is to provide a device for facilitating putting on a sock that is simple to use.

BRIEFLY STATED, STILL ANOTHER OBJECT of the present invention is to provide a device for facilitating putting on a sock. A movable frame is received by the sock and is swingingly attached to a stationary frame. The stationary frame rests on the ground and includes a front frame and a rear frame. The movable frame includes a front frame and a rear frame. Each of the front frame and the rear frame of the movable frame has a front portion and a rear portion.

The novel features which are considered characteristic of the present invention are set forth in the appended claims. The invention itself, however, both as to its construction and its method of operation, together with additional objects and advantages thereof, will be best understood from the following description of the specific embodiments when read and understood in connection with the accompanying drawing.

BRIEF DESCRIPTION OF THE DRAWING

The figures of the drawing are briefly described as follows:

FIGURE 1 is a diagrammatic perspective view of the device of the present invention, with parts broken away, facilitating putting on a sock;

FIGURE 2 is an enlarged diagrammatic front elevational view taken generally in the direction of ARROW 2 in FIGURE 1 of the device of the present invention shown in use in FIGURE 1, but without parts broken away;

FIGURE 3 is a diagrammatic side elevational view taken generally in the direction of ARROW 3 in FIGURE 2 of the device of the present invention shown in FIGURE 2 and shown in use in FIGURE 1, but without parts broken away;

FIGURE 4 is an enlarged diagrammatic front elevational view of the area generally enclosed by the dotted curve identified by ARROW 4 in FIGURE 2 of the movable frame of the device of the present invention;

FIGURE 5 is a diagrammatic side elevational view taken generally in the direction of ARROW 5 in FIGURE 4 of the movable frame of th device of the present invention; and

FIGURE 6 is a diagrammatic top plan view taken generally in the direction of ARROW 6 in FIGURE 5 of the movable frame of the device of the present invention.

LIST OF REFERENCE NUMERALS UTILIZED IN THE DRAWING

10	device of present invention for facilitating putting on sock 12
12	sock
13	foot
14	stationary frame for resting on ground 18
16	movable frame for being received by sock 12
18	ground
20	front frame of stationary frame 14
22	rear frame of stationary frame 14
24	bottom member of front frame 20 of stationary frame 14 for resting on ground 18
26	pair of side members of front frame 20 of stationary frame 14
28	pair of ends of bottom member 24 of front frame 20 of stationary frame 14
30	pair of ends of pair of side members 26 of front frame 20 of stationary frame 14
32	bottom member of rear frame 22 of stationary frame 14
34	pair of side members of rear frame 22 of stationary frame 14
36	pair of ends of bottom member 32 of rear frame 22 of stationary frame 14
38	pair of ends of pair of side members 34 of rear frame 22 of stationary frame 14
40	pair of axis points of stationary frame 14
42	pair of axles of stationary frame 14
43	pair of cross members of stationary frame 14 for resting on ground 18
44	front frame of movable frame 16
46	rear frame of movable frame 16
48	front portion of front frame 44 of movable frame 16
50	rear portion of front frame 44 of movable frame 16

52 top member of front portion 48 of front frame 44 of movable frame 16

54 pair of side members of front portion 48 of front frame 44 of movable frame 16

56 pair of ends of top member 52 of front portion 48 of front frame 44 of movable frame 16

58 pair of ends of pair of side members 54 of front portion 48 of front frame 44 of movable frame 16

60 pair of side members of rear portion 50 of front frame 44 of movable frame 16

62 pair of ends of pair of side members 60 of rear portion 50 of front frame 44 of movable frame 16

64 front portion of rear frame 46 of movable frame 16

66 rear portion of rear frame 46 of movable frame 16

68 top member of front portion 64 of rear frame 46 of movable frame 16

70 pair of side members of front portion 64 of rear frame 46 of movable frame 16

72 pair of ends of top member 68 of front portion 64 of rear frame 46 of movable frame 16

74 pair of ends of pair of side members 70 of front portion 64 of rear frame 46 of movable frame 16

76 pair of side members of rear portion 66 of rear frame 46 of movable frame 16

78 pair of ends of pair of side members 76 of rear portion 66 of rear frame 46 of movable frame 16

80 pair of axis points of movable frame 16

82 pair of sleeves of movable frame 16

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the figures, in which like numerals indicate like parts, and particularly to FIGURE 1, the device of the present invention is shown generally at 10 for facilitating donning on a sock 12, on a foot 13.

The overall configuration of the device 10 can best be seen in FIGURE 1, and as such, will be discussed with reference thereto.

The device 10 comprises a stationary frame 14 and a movable frame 16. The movable frame 16 is for being received by the sock 12 and is movably mounted to the stationary frame 14.

The specific configuration of the stationary frame 14 can best be seen in FIGURES 2 and 3, and as such, will be discussed with reference thereto.

The stationary frame 14 is for resting on the ground 18, and comprises a front frame 20 and a rear frame 22.

The front frame 20 of the stationary frame 14 is U-shaped, and comprises a bottom member 24 and a pair of side members 26.

The bottom member 24 of the front frame 20 of the stationary frame 14 is for resting on the ground 18, is straight, slender, elongated, horizontally-oriented, and has a pair of ends 28.

The pair of side members 26 of the front frame 20 of the stationary frame 14 are straight, slender, elongated, vertically-oriented, and parallel to each other.

The pair of side members 26 of the front frame 20 of the stationary frame 14 extend upwardly and rearwardly from the pair of ends 28 of the bottom member 24 of the front frame 20 of the stationary frame 14, respectively, to a pair of ends 30, respectively.

The rear frame 22 of the stationary frame 14 is U-shaped, and comprises a bottom member 32 and a pair of side members 34.

The bottom member 32 of the rear frame 22 of the stationary frame 14 is for resting on the ground 18 is straight, slender, elongated,

horizontally-oriented, has a pair of ends 36, and is parallel to, and disposed rearward of, the bottom member 24 of the front frame 20 of th stationary frame 14.

The pair of side members 34 of the rear frame 22 of the stationary frame 14 are straight, slender, elongated, vertically-oriented, parallel to each other, and are disposed rearward of the pair of side members 26 of the front frame 20 of the stationary frame 14.

The pair of side members 34 of the rear frame 22 of the stationary frame 14 extend upwardly and forwardly from the pair of ends 36 of the bottom member 32 of the rear frame 22 of the stationary frame 14, respectively, to a pair of ends 38, respectively.

The pair of ends 38 of the pair of side members 34 of the rear frame 22 of the stationary frame 14 coincide with the pair of ends 30 of the pair of side members 26 of the front frame 20 of the stationary frame 14, respectively, to form a pair of axis points 40 of the stationary frame 14.

The stationary frame 14 further comprises a pair of axles 42. The pair of axles 42 of the stationary frame 14 are straight, slender, elongated, horizontally-oriented, and collinear with each other.

The pair of axles 42 of the stationary frame 14 extend slightly inwardly from the axis points 40 of the stationary frame 14, respectively.

The stationary frame 14 further comprises a pair of cross members 43. The pair of cross members 43 of the stationary frame 14 are for resting on the ground 18, are straight, slender, elongated, horizontally-oriented, and parallel to each other.

The pair of cross members 43 of the stationary frame 20 extend rearwardly from the pair of ends 28 of the bottom member 24 of the front frame 20 of the stationary frame 14 to the pair of ends 36 of the bottom member 32 of the rear frame 22 of the stationary frame 14, respectively.

The specific configuration of the movable frame 16 can best be seen in FIGURES 4-6, and as such, will be discussed with reference thereto.

The movable frame 16 is swingingly attached to the stationary frame 14, and comprises a front frame 44 and a rear frame 46.

The front frame 44 of the movable frame 16 has a front portion 48 and a rear portion 50.

The front portion 48 of the front frame 44 of the movable frame 16 is inverted U-shaped, and comprises a top member 52 and a pair of side members 54.

The top member 52 of the front portion 48 of the front frame 44 of the movable frame 16 is convex, slender, elongated, horizontally-oriented, and has a pair of ends 56.

The pair of side members 54 of the front portion 48 of the front frame 44 of the movable frame 16 are straight, slender, elongated, vertically-oriented, and parallel to each other.

The pair of side members 54 of the front portion 48 of the front frame 44 of the movable frame 16 extend downwardly and rearwardly from the pair of ends 56 of the top member 52 of the front portion 48 of the front frame 44 of the movable frame 16, respectively, to a pair of ends 58, respectively.

The rear portion 50 of the front frame 44 of the movable frame 16 comprises a pair of side members 60.

The pair of side members 60 of the rear portion 50 of the front frame 44 of the movable frame 16 are straight, slender, elongated, vertically-oriented, and parallel to each other.

The pair of side members 60 of the rear portion 50 of the front frame 44 of the movable frame 16 extend upwardly and rearwardly from the pair of ends 58 of the pair of side members 54 of the front portion 48 of the front frame 44 of the movable frame 16, to a pair of ends 62, respectively.

The rear frame 46 of the movable frame 16 has a front portion 64 and a rear portion 66.

The front portion 64 of the rear frame 46 of the movable frame 16 is inverted U-shaped, and comprises a top member 68 and a pair of side members 70.

The top member 68 of the front portion 64 of the rear frame 46 of the movable frame 16 is convex, slender, elongated, horizontally-oriented, and has a pair of ends 72.

The pair of side members 70 of the front portion 64 of the rear frame 46 of the movable frame 16 are straight, slender, elongated, vertically-oriented, and parallel to each other.

The pair of side members 70 of the front portion 64 of the rear frame 46 of the movable frame 16 extend downwardly and rearwardly from the pair of ends 72 of the top member 68 of the front portion 64 of the rear frame 46 of the movable frame 16, respectively, to a pair of ends 74, respectively.

The rear portion 66 of the rear frame 46 of the movable frame 16 comprises a pair of side members 76.

The pair of side members 76 of the rear portion 66 of the rear frame 46 of the movable frame 16 are straight, slender, elongated, vertically-oriented, and parallel to each other.

The pair of side members 76 of the rear portion 66 of the rear frame 46 of the movable frame 16 extend upwardly and forwardly from the pair of ends 74 of the pair of side members 70 of the front portion 64 of the rear frame 46 of the movable frame 16, to a pair of ends 78, respectively.

The pair of ends 78 of the pair of side members 76 of the rear portion 66 of the rear frame 46 of the movable frame 16 coincide with the pair of ends 62 of the pair of side members 60 of the rear portion 50 of the front frame 44 of the movable frame 16, respectively, to form a pair of axis points 80 of the movable frame 16.

The movable frame 16 further comprises a pair of sleeves 82. The pair of sleeves 82 of the movable frame 16 are straight, slender, elongated, horizontally-oriented, and collinear with each other.

The pair of sleeves 82 of the movable frame 16 extend slightly outwardly from the axis points 80 of the movable frame 16, respectively, and swingingly receive the pair of axles 42 of the stationary frame 14,

respectively, so as to allow the movable frame 16 to swing relative to the stationary frame 14.

It will be understood that each of the elements described above, or two or more together, may also find a useful application in other types of constructions differing from the types described above.

While the invention has been illustrated and described as embodi d in a device for facilitating putting on a sock, however, it is not limited to the details shown, since it will be understood that various omissions, modifications, substitutions and changes in the forms and details of the device illustrated and its operation can be made by those skilled in the art without departing in any way from the spirit of the present invention.

Without further analysis, the foregoing will so fully reveal the gist of the present invention that others can, by applying current knowledge, readily adapt it for various applications without omitting features that, from the standpoint of prior art, fairly constitute characteristics of the generic or specific aspects of this invention.